M4A89GTD PRO Series Note: The specifications are subject to change without notice.		M4A89GTD PRO
CPU	AMD Socket AM3 ;Phenom™II /Athlon™II /Sempron™ 100 Series AMD 140W CPU Support AMD Cool 'n' Quiet™ Technology Supports 45nm CPU	v
Chipset	AMD 890GX/SB850	v
System Bus	Up to 5200 MT/s HyperTransport™ 3.0	v
Memory	4 x DIMM, Max. 16 GB, DDR3 1866(O.C.)/1333/1066 ECC,Non-ECC,Un-buffered Memory Dual Channel memory architecture *Due to OS limitation, when installing total memory of 4GB capacity or more, Windows® 32-bit operation system may only recognize less than 3GB. Hence, a total installed memory of less than 3GB is recommended. **Refer to www.asus.com for the memory QVL (Qualified Vendors Lists).	v
Expansion Slots	2 x PCIe 2.0 x16 support ATI CrossFireX™ technology(@dual x8 speed)	v
	1 x PCIe 2.0 x4 slot	v
	1 x PCIe 2.0 x1 slot	v
	2 x PCI slots	v
VGA Output	Integrated ATI Radeon™ HD 4290 GPU	v
	Multi-VGA output support: HDMI, DVI-D and RGB ports	v
	Supports HDMI with max. resolution 1920 x 1200 (1080P)	v
	Supports DVI with max. resolution 2560x1600 @60Hz	v
	Supports RGB with max. resolution 2560x1440 @75Hz	v
	Support H.264, VC-1, MPEG-2, DirectX10.1 and OpenGL2.0	v
	Support Shader Model 4.1, Universal Video Decoder (UVD) 2.0	v
	Max. UMA Memory Size: 512 MB	v
	128MB DDR3 1333 sideport memory support	v
	Hybrid CrossFireX support	v
Storage	AMD® SB850 Chipset	v
	- 6 x SATA 6.0 Gb/s ports with RAID 0,1,5 and 10 support	v
	JMicron® JMB361 PATA and SATA controller:	v
	- 1 x Power eSATA 3.0 Gb/s port	v
	- 1 x Ultra DMA 133/100 for up to 2 PATA devices	v
LAN	Realtek® 8111E Gigabit LAN controller featuring AI NET2	v
Audio	ALC 892 8-channel High Definition Audio CODEC	v
	- BD Audio Layer Content Protection	v
	- DTS Surround Sensation UltraPC	v
	- Supports Jack-Detection, Multi-Streaming, and Front Panel Jack-	v
	- Optical S/PDIF Out ports at back I/O	v
	- ASUS Noise Filter	v
USB	12 x USB 2.0 ports (8 ports at mid-board, 4 ports at back panel)	
	2 x USB 3.0 ports (2 ports at back panel)	
	14 x USB 2.0 ports (8 ports at mid-board, 6 ports at back panel)	v
IEEE1394	VIA® 6308P controller supports 2 x 1394a ports (1 at mid-board; 1 at back panel)	v
ASUS Unique Features	**ASUS Xtreme Design**	v
	ASUS Hybrid Processor -- TurboV EVO	**v**
	- Auto Tuning, TurboV, CPU Level UP and GPU Boost	v
	ASUS Hybrid Switch	v
	- Core Unlocker	v
	- Turbo Key II	v
	ASUS Hybrid OS -- Express Gate	**v**
	ASUS Power Solutions	v
	- 8+2 Phase Power Design	v
	- ASUS EPU	v
	ASUS Exclusive Features	v
	- MemOK!	v
	ASUS Quiet Thermal Solution	v
	- ASUS Fanless Design: Heat pipe solution	v
	- ASUS Fan Xpert	v
	ASUS EZ DIY	v
	- ASUS Q-DIMM	v
	- ASUS O.C. Profile	v
	- ASUS CrashFree BIOS 3	v
	- ASUS EZ Flash 2	v
	- ASUS MyLogo 2	v
	- Percision Twerker 3	v
	- Multi-language BIOS	v
	Precision Tweaker 3:	v
	- vCore: Adjustable CPU voltage at 0.003125V increment	v
	- vDDNB: Adjustable CPU NB voltage at 0.003125V increment	v

ASUS Exclusive Overclocking Features	- vCPU PLL Adjustable DRAM voltage at 0.00625V increment	v
	- vHT bus: Adjustable PCH voltage at 0.00625V increment	v
	- vDRAM Bus Adjustable CPU_PLL voltage at 0.00625V increment	v
	- iChipset: Adjustable iGPU voltage at 0.00625V increment	v
	SFS (Stepless Frequency Selection)	v
	- Internal Base Clock tuning from 100MHz up to 600MHz at 1MHz	v
	- PCI Express frequency tuning from 100MHz up to 150MHz at 1MHz	v
	Overclocking Protection:	v
	- ASUS C.P.R.(CPU Parameter Recall)	v

Back Panel I/O Ports	1 x PS/2 Keyboard (Purple)	v
	1 x HDMI Output	v
	1 x DVI-D Output	v
	1 x D-sub Output	v
	1 x Optical S/PDIF Output	v
	1 x RJ45 port	v
	1 x IEEE1394a Port	v
	1 x Power eSATA	v
	4 x USB 2.0/1.1 ports	
	2 x USB 3.0 ports	
	6 x USB 2.0/1.1 ports	v
	8-channel Audio I/O	v
Internal I/O Connectors	4 x USB connectors support additional 8 USB ports	v
	1 x IDE connector	v
	6 x SATA 6Gb/s connectors	v
	1 x CPU Fan connector	v
	1 x Chassis Fan connector (4-pin)	v
	1 x Chassis Fan connector (3-pin)	v
	1 x Power Fan connector	v
	1 x IEEE1394a connector	v
	1 x S/PDIF Out Header	v
	1 x Core Unlocker Switch	v
	1 x Turbo Key II Switch	v
	1 x MemOK! Button	v
	Front panel audio connector	v
	1 x COM connector	v
	1 x Clear CMOS jumper	v
	1 x 24-pin ATX Power connector	v
	1 x 8-pin ATX 12V Power connector	v
	System Panel	v
BIOS	16 Mb Flash ROM, SPI, AMI BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 2.5, ACPI 2.0a, Multi-language BIOS, ASUS EZ Flash 2, ASUS CrashFree	v
Manageability	WfM 2.0, DMI 2.0, WOL by PME, WOR by PME, PXE	v
Accessories	1 x Ultra DMA 133/100 cable	v
	2 x Serial ATA 3.0Gb/s cables	v
	2 x Serial ATA 6.0Gb/s cables	v
	1 x Q-Shield	v
	1 x VGA Switch card	v
	2 in 1 Q-connector (USB, System panel; Retail version only)	v
	User's manual	v
Support DVD	Drivers	v
	ASUS Utilities	v
	ASUS Update	v
	Anti-virus software (OEM version)	v
Form Factor	ATX Form Factor, 12"x 9.6" (30.5cm x 24.4cm)	v